IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

GEORGE, et al.

Serial No.:	**10/728,864**	Group Art Unit:	2144
Filed:	December 8, 2003	Examiner:	Cheema, U.

For: SYSTEM FOR ANALYZING WEB CLIENT DIALOG

Commissioner of Patents
Alexandria, VA 22313-1450

APPELLANTS' BRIEF ON APPEAL

Sir:

Appellants respectfully appeal the rejection of claims 1-30 in the Office Action mailed on February 14, 2008. A Notice of Appeal was timely filed on May 12, 2008.

I. REAL PARTY IN INTEREST

The real party in interest is International Business Machines Corporation (IBM), assignee of 100% interest of the above-referenced patent application.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellants, Appellants' legal representative, or Assignee which would directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

Claims 1-30 are all the claims presently pending in the application.

Claims 14-23 stand rejected under 35 U.S.C. § 101 as allegedly directed toward non-statutory subject matter.

Claims 1-30 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 6,298,356 to Jawahar et al.

All the above rejections are being appealed, for all claims.

IV. STATUS OF AMENDMENTS

A Request for Reconsideration Under 37 CFR §1.116 was filed on March 4, 2008. In the Advisory Action mailed on April 18, 2008, the Examiner indicated that the arguments in the Request for Reconsideration Under 37 CFR §1.116 were not persuasive and that all rejections were maintained for all claims.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Conventional methods related to the present invention, as described beginning at line 16 on page 17, are deficient by reason of being unable to comprehensively monitor a dialog between a user and a web site, particularly as the user meanders to other unrelated web sites.

The claimed invention, on the other hand, sets up an intermediary so that all dialog requests and responses are redirected to that intermediary before being forwarded. This interception of the entire dialog allows the contents of the dialog to be analyzed to determine a state of the dialog, including a mental state of the user. This comprehensive capture capability was not possible in conventional methods of dialog monitoring.

The bases in the specification for the independent claims are as follows, along with

the bases for dependent claim 26 that uses means-plus-function format.

1. (Rejected) A method (Figures 7-10) of enhancing a dialog with a web server, said method comprising:

determining a dialog state by comprehensively capturing a dialog with said web server (Figure 4, wherein is shown intermediary 404 as established to intercept dialog elements whether originating from browser 402 or the server 404 currently being used by user 401).

14. (Rejected) An apparatus (Figure 11) for enhancing a dialog with a web server, said apparatus comprising:

a dialog capture module (Figure 4, item 404) to comprehensively capture a dialog between said web server and a browser (Figure 4, wherein is shown intermediary 404 as established to intercept dialog elements whether originating from browser 402 or the server 404 currently being used by user 401).

19. (Rejected) A signal-bearing medium (Figure 11, items 1114, 1116, 1140; Figure 12, item 1200) tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method of enhancing a dialog with a web server, said method comprising:

comprehensively capturing a dialog between said web server and a browser (Figure 4, wherein is shown intermediary 404 as established to intercept dialog elements whether originating from browser 402 or the server 404 currently being used by user 401).

24. (Rejected) A method of providing a service (lines 14-20 of page 39), said method comprising at least one of:

operating an intermediary web service to comprehensively capture a dialog with a web site, wherein said dialog is captured when an initial access request from a browser is received by said web site and a subsequent dialog between said web site and said browser is directed through said intermediary web service (Figure 4, wherein is shown intermediary 404 as established to intercept dialog elements whether originating from browser 402 or the server 404 currently being used by user 401; lines 13-20 of page 39);

operating a web site that requests said intermediary web service to capture said dialog (lines 15-17 of page 39);

analyzing information in said dialog (lines 1-8 of page 17);

modifying a content of said dialog (Figure 9);

designing a computer program module to be incorporated in said intermediary web service for said dialog capturing (lines 17-20 of page 39);

designing a computer program module to be used in said analyzing (lines 17-20 of page 39); and

designing a computer program module to be used in said modifying content of said dialog (lines 17-20 of page 39).

25. (Rejected) A system (Figure 4) for capturing a dialog with a web server, said system comprising:

means (Figure 4, item 408) for receiving, from a browser, an initial access request to said web server (Figure 4, wherein is shown intermediary 404 as established to intercept

dialog elements whether originating from browser 402 or the server 404 currently being used by user 401);

means (Figure 4, item 404) for comprehensively capturing a dialog between said browser and said web server based on said initial access request, wherein said capturing includes capturing an inbound request from said browser and an outbound response from said web server in response to said inbound request.

26. (Rejected) The system of claim 25, further comprising:

means (Figure 4, item 404) for determining a state of a user involved in said dialog (lines 1-8 of page 17).

27. (Rejected) A method of providing a service (lines 5-8 of page 31), said method comprising at least one of:

operating a web server so that, upon receiving an initial access request to said web server, a subsequent dialog associated with said initial access is directed through an intermediary established to capture said dialog (Figure 4, wherein is shown intermediary 404 as established to intercept dialog elements whether originating from browser 402 or the server 404 currently being used by user 401);

operating a web server in the manner of said intermediary (lines 5-8 of page 31);

at least one of developing, producing, selling, transmitting via said web server, and receiving, via a network, a set of machine-readable instructions executable by a digital processing apparatus to perform a method of capturing a dialog on said network using said intermediary (lines 5-8 of page 31);

at least one of developing, producing, selling, transmitting via said network, and receiving via said network a set of machine-readable instructions executable by a digital processing apparatus to perform a method of at least one of filtering and modifying a dialog being processed through said intermediary (lines 16-21 of page 31);

at least one of receiving, displaying, storing, analyzing, and receiving an analysis of a dialog captured using said intermediary (lines 5-8 of page 31);

at least one of developing, producing, selling, transmitting via said network, receiving via said network, and executing a set of machine-readable instructions executable by a digital processing apparatus to at least one of receive, display, store, and analyze a dialog captured using said intermediary (lines 5-8 of page 31).

30. (Rejected) A method of enhancing a dialog with a web server, said method comprising:

comprehensively capturing a dialog with said web server by (Figure 4, wherein is shown intermediary 404 as established to intercept dialog elements whether originating from browser 402 or the server 404 currently being used by user 401):

setting up an intermediary (Figure 4, item 404; lines 18-21 of page 19)) when a user contacts said web server;

modifying URLs sent by said user so as to route requests of said user to said intermediary (lines 1-4 of page 21); and

modifying URLs sent by said web server so as to route to said intermediary the responses of said web server to said requests (lines 10-12 of page 21),

said intermediary thereby capturing all requests and responses of said dialog (lines 10-12 of page 20).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellant presents the following grounds for review by the Board of Patent Appeals and Interferences:

GROUND 1: The Statutory Subject Matter Rejections for Claims 14-23; and

GROUND 2: The Anticipation Rejection for Claims 1-30, Based on U.S. Patent 6,298,356 to Jawahar et al.

VII. ARGUMENTS

GROUND 1: The Statutory Subject Matter Rejections

The Examiner's Position for Claims 19-23

The Examiner rejects claims 19-23 because, as alleged in paragraph 2 of the Office Action mailed on February 14, 2008, "*The claims read signal-bearing medium, which is directed to non-statutory subject and is unpatentable.*" In paragraph 4 on page 11 of that Office Action, the Examiner further alleges: "*Claims 19-23 are directed to signal-bearing and signal can not be statutory.*"

Appellants' Position

Appellants respectfully submit that the Examiner's position comprises both error of fact and error of law.

As a matter of fact, claim 19 (and impliedly, dependent claims 20-23) is clearly addressed to a "signal-bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method of …." Contrary to the Examiner's characterization recited above, these claims are not directed to a "signal", thereby rendering as moot the Examiner's rationale for this rejection.

As a matter of law, the terminology at issue in these claims must be interpreted in view of the discussion in the specification. The "signal-bearing media" terminology is described beginning at line 7 on page 41 of the specification and clearly refers to media used to store instructions. A "signal" *per se* is not recognized as a medium capable of storing instructions, either alone or within a device, and the Examiner fails to demonstrate such

capability is known in the art. Therefore, these claims are clearly not directed to a "signal" *per se*, as based on any description in the specification.

The discussion in the specification clearly relates to storage of instructions, as tangibly embodied in such media as memory components on a computer, either as a hard drive storing instructions for programs selectively to be executed, as RAM storing instructions of a program being actively executed, as storage devices in communication links or wireless devices, or as standalone diskettes such as exemplarily demonstrated in Figure 12.

The latter interpretation of standalone diskettes are clearly a product of manufacture and were conceded by the USPTO as statutory subject matter in *In re Beauregard*, 53 F.3d 1583 (1995), wherein the Commissioner conceded to the Court of Appeals that such diskettes were statutory subject matter in order to have that case dismissed by the Court. US Patent No. 5,710,578 to Beauregard et al, issued on January 20, 1998.

"Signal-bearing" is clearly used in this description in the specification as connoting functionality. Therefore, even the Examiner's recitation on page 12 of the Office Action, as based on the Guidelines/MPEP, indicates that this language, therefore, is clearly statutory: "*When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.*"

Appellants, therefore submit that these claims are indeed directed toward statutory subject matter and that the Examiner's fundamental flaw in reasoning results from attempting to take words out of context for purpose of statutory subject matter analysis.

Accordingly, Appellants respectfully submit that the rejection of record fails to meet the initial burden of a *prima facie* non-statutory subject matter rejection.

The Examiner's Position for Claims 14-18

The Examiner rejects claims 14-18 because, as alleged in paragraph 2 of the Office Action mailed on February 14, 2008, "*The claims read dialog with a web server, which is directed to non-statutory subject matter.*" In paragraph 4 on page 11 of that Office Action, the Examiner further alleges: "*Claims 14-18 are directed to an "apparatus" [but this] does not make them statutory because according to the specification the apparatus can be a software.*"

Appellants' Position

Appellants respectfully submit that the Examiner's position comprises both error of fact and error of law, and, indeed, makes little, if any, sense to one having ordinary skill in the art.

First, as a matter of fact, contrary to the Examiner's recited passage above, the specification does not describe that an "*... apparatus can be a software.*" The Examiner fails to clearly identify precisely where in the specification this alleged statement occurs.

Appellants respectfully point out that, absent such location being clearly identified on the record, the closest that the specification comes to such characterization is a description that a computer-based method will include aspects of software, as is commonly known in the art.

Second, as a matter of law, Appellants' representative is not aware of any case that holds that an "apparatus" can be arbitrarily converted into "software", thereby converting the apparatus into non-statutory subject matter. An "apparatus" is clearly one of the four categories expressly identified in 35 USC §101 and there is no qualification in this statute

that having a "software aspect" renders the apparatus non-statutory, as the Examiner seems to imply. Indeed, the case holding seemingly most often relied upon by the USPTO in this regard is *In re Warmerdam*, 33 F.3d 1354 (Fed. Cir., 1994), in which holding the Court clearly indicated that the apparatus claims were clearly patentable subject matter even if the method claims directed to generating a data structure and the claims directed to the data structure itself were considered non-statutory. However, there is no suggestion in *Warmerdam* nor any other case law that Appellants' representative is aware of that holds that an apparatus claim is converted into non-statutory subject matter simply because the invention includes aspects of software.

Therefore, Appellants respectfully submit that this second statutory subject matter rejection likewise fails to meet the initial burden of a *prima facie* rejection for statutory subject matter, absent identification on the record as to a specific case law citation for such rather remarkable conversion of claim content.

For the reasons stated above, the Board is respectfully requested to reconsider and withdraw these statutory subject matter rejections, particularly since statutory subject matter is a question of law, not a question of fact, and the Examiner's personal opinions will therefore not be accorded any legal deference by the Courts, particularly when the Examiner's position is seemingly based only upon taking words out-of-context.

GROUND 2: The Anticipation Rejection for Claims 1-30, Based on U.S. Patent 6,298,356 to Jawahar et al.

The Examiner's Position

The Examiner alleges that Jawahar teaches the claimed invention, particularly defending this position on page 12 of the latest Office Action: "*... it is the Examiner's position that Jawahar does teach or suggest wherein said determining a dialog state by comprehensively capturing a dialog with said web server ([see] col. 3, lines 52-67; a system in which an agent or other representative is able to [communicate] with a customer or other individual or system).*"

Appellants' Position

Appellants continue to respectfully disagree, particularly since Jawahar does not use an intermediary, as that term is defined in the specification at line 16 of page 12 through line 16 of page 13. Nor does Jawahar have the capability of comprehensively capturing the whole dialog as that terminology is described at lines 9-12 of page 13, including the capability to monitor the dialog throughout the user's meanderings to other web sites.

Jawahar discloses a method (see Figure 1 and lines 27-34 of column 4) in which a Java applet and JavaScript method are downloaded to a user's computer when the user contacts a server (lines 4-27 of column 11). The method monitors which pages from the server the user accesses (Figure 7A), including a monitoring of amount of time (Figures 7B & 8). From this monitoring, the method determines whether to present a "help" icon (step 262 of Fig. 8) so that the user can obtain assistance, if desired. If the user does select "help", this request is directed to a server that forwards the request to an agent (Figure 9), who will then enter into a dialog with the user (step 610 of Fig. 13, step 710 of Fig. 14).

This method of Jawahar is clearly different from that of the claimed invention, even if there are some similarities in some aspects. It clearly fails to use an intermediary and clearly fails to comprehensively capture the entire dialog.

In particular, as illustrated perhaps best by the amendment to claim 30, the present invention uses a method quite different from that of Jawahar wherein Java components are downloaded from the server to the user's computer. The method of Jawahar allows a monitoring of only the accesses made by the user from that server, and the closest that Jawahar's method comes to determining a "state" of the dialog with the server is the use of timer modules measuring the time the user spends on a page.

In contrast to Jawahar, the present invention sets up an intermediary and causes all user requests and all server responses to be redirected through this intermediary (e.g., proxy server), thereby providing a "comprehensive" capture of the dialog. As explained on pages 12 through 16, this method is based on the assignee's Web Intermediaries (WBI) component, which allows an intermediary to be placed into the request and response streams of the user, thereby providing a dialog capture capability not previously available, including a method to capture the user's state. This redirection technique also permits meanderings to other web sites to be captured, thereby providing a comprehensive capture of the dialog as it progresses to other web sites.

Thus, in contrast to the method of Jawahar, wherein a module is downloaded and installed in the user's browser to monitor only the user's accesses to web pages of that web site, the present invention monitors the streams of both the user's requests and the server's responses. This dialog monitoring is, therefore, more comprehensive than that being done in Jawahar, particularly in view of the capability of the present invention to continue the dialog monitoring even when the user meanders away from the web site to check out other web sites

for additional information. Jawahar's method does not offer this comprehensive dialog monitoring capability, as this term is described in the specification, even if the time monitoring of Jawahar's method is broadly interpreted as providing an analysis of the state of the dialog.

Hence, turning to the clear language of the claims, in Jawahar there is no teaching or suggestion of: "... determining a dialog state by comprehensively capturing a dialog with said web server", as required by independent claim 1. The remaining independent claims have similar language.

Moreover, relative to the rejection of record for claims 3-5, Appellants submit that the only analysis done in the method of Jawahar is that of monitoring the times spent on the various pages accessed, which analysis fails to reasonably satisfy the plain meaning of the claim language of these claims. The only other analysis in Jawahar is that of determining the best agent to rely upon, but this analysis is not reasonably described as being a determination of the state of the dialog itself. Relative to claim 5 specifically, Jawahar fails to suggest using natural language processing capability.

Relative to the rejection for claims 6 and 7, as explained above, the method of Jawahar is based upon downloading Java components to the user's browser. There is no suggestion in Jawahar to use an intermediary, as this term is discussed in the specification of the present application and understood as a term of art by persons of skill in the art.

Relative to the rejection for claims 11, 13, and 18, there is no suggestion in Jawahar that the user's dialog with the original server would be continued if the user moved to another unrelated server.

Relative to the rejection for claims 25 and 26, written in means-plus-function format, Jawahar fails to reasonably teach or suggest using a method having the means described in

the present application or any reasonable equivalent. Therefore, these claims are clearly patentable over Jawahar.

Therefore, Appellants respectfully submit that there are elements of the claimed invention that are not taught or suggest by Jawahar and that the rejection currently of record has thereby failed to establish a prima facie rejection for anticipation.

Therefore, the Board is respectfully requested to reverse this rejection based on Jawahar.

IX. CONCLUSION

In view of the foregoing, Appellant submit that claims 1-30, all the claims presently pending in the application, are clearly enabled and patentably distinct from the prior art of record and in condition for allowance. Thus, the Board is respectfully requested to remove all rejections of claims 1-30.

Please charge any deficiencies and/or credit any overpayments necessary to enter this paper to Assignee's Deposit Account number 50-0510.

Respectfully submitted,

Dated: July 14, 2008

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CLAIMS APPENDIX

The claims, as reflected upon entry of the Amendment Under 37 CFR §1.111 filed on August 22, 2007, are as follows:

1. (Rejected) A method of enhancing a dialog with a web server, said method comprising:

determining a dialog state by comprehensively capturing a dialog with said web server.

2. (Rejected) The method of claim 1, further comprising:

modifying said dialog, as based on said determining said state.

3. (Rejected) The method of claim 1, said determining a dialog state further comprising:

analyzing a content of said dialog.

4. (Rejected) The method of claim 3, said determining a dialog state further comprising:

analyzing a context of said content.

5. (Rejected) The method of claim 4, wherein said context analyzing optionally comprises natural language processing.

6. (Rejected) The method of claim 1, wherein said comprehensively capturing said dialog comprises:

causing an inbound request from said browser to be directed to an intermediary; and

causing an outbound response bound for said browser to be first directed to said

intermediary.

7. (Rejected) The method of claim 6, wherein said causing said inbound request and said outbound response to be directed to said intermediary further causes a plurality of inbound requests and a plurality of outbound responses to be directed to said intermediary.

8. (Rejected) The method of claim 1, further comprising:

modifying a content of said dialog.

9. (Rejected) The method of claim 8, wherein said modifying comprises at least one of:

modifying an existing element from one of an inbound request and an outbound response;

removing an element from said outbound response, wherein an action at said browser allows said element to be re-instated;

removing an element from said outbound response, wherein said removed element cannot be re-instated by any action at said browser;

replacing a first element from one of said inbound request and said outbound response by a second element; and

adding a new element to one of said inbound request and said outbound response.

10. (Rejected) The method of claim 9, wherein said modification comprises inserting a uniform resource locator (URL) to allow one of:

said user to select a second, non-related web server;

an inbound request for said user to be sent to a new target web server;

an inbound request from said user to be directed to said web site and a response thereof to be sent to said intermediary;

an outbound response from said web site to be directed to said user; and

an outbound response from one of said second non-related web server and said new target web server to be directed to said intermediary;

11. (Rejected) The method of claim 9, wherein said dialog continues to be captured when said second, non-related web server is selected by said user and when said requests are sent to said new target web server.

12. (Rejected) The method of claim 2, wherein said modifying performs at least one of:

improving an efficiency of said web site;

censoring information to said user;

providing a warning to said user;

asking said user to explain at least one of an action and a mental state;

providing additional information;

providing additional information that can be selected by said user;

indicating a second, non-related web site to be selectable by said user; and

providing additional information to attempt to influence a decision by said user.

13. (Rejected) The method of claim 1, wherein said dialog continues to be captured when a user selects another web site.

14. (Rejected) An apparatus for enhancing a dialog with a web server, said apparatus

comprising:

a dialog capture module to comprehensively capture a dialog between said web server and a browser.

15. (Rejected) The apparatus of claim 14, further comprising:

an analyzer to determine a state of a user involved in said dialog.

16. (Rejected) The apparatus of claim 14, further comprising:

a module to modify said dialog.

17. (Rejected) The apparatus of claim 16, wherein said module to modify performs a modification of said dialog based on a state of said dialog.

18. (Rejected) The apparatus of claim 14, wherein said dialog continues to be captured if a user selects another web site.

19. (Rejected) A signal-bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method of enhancing a dialog with a web server, said method comprising:

comprehensively capturing a dialog between said web server and a browser.

20. (Rejected) The signal-bearing medium of claim 19, said method further comprising:

determining a state of a user involved in said dialog.

21. (Rejected) The signal-bearing medium of claim 19, said method further comprising:

modifying said dialog.

22. (Rejected) The signal-bearing medium of claim 20, said method further comprising:

modifying said dialog based on said state.

23. (Rejected) The signal-bearing medium of claim 20, wherein said determining said state comprises:

analyzing a context of a content of said dialog.

24. (Rejected) A method of providing a service, said method comprising at least one of:

operating an intermediary web service to comprehensively capture a dialog with a web site, wherein said dialog is captured when an initial access request from a browser is received by said web site and a subsequent dialog between said web site and said browser is directed through said intermediary web service;

operating a web site that requests said intermediary web service to capture said dialog;

analyzing information in said dialog;

modifying a content of said dialog;

designing a computer program module to be incorporated in said intermediary web service for said dialog capturing;

designing a computer program module to be used in said analyzing; and

designing a computer program module to be used in said modifying content of said dialog.

25. (Rejected) A system for capturing a dialog with a web server, said system comprising:

means for receiving, from a browser, an initial access request to said web server;

means for comprehensively capturing a dialog between said browser and said web server based on said initial access request, wherein said capturing includes capturing an inbound request from said browser and an outbound response from said web server in response to said inbound request.

26. (Rejected) The system of claim 25, further comprising:

means for determining a state of a user involved in said dialog.

27. (Rejected) A method of providing a service, said method comprising at least one of:

operating a web server so that, upon receiving an initial access request to said web server, a subsequent dialog associated with said initial access is directed through an intermediary established to capture said dialog;

operating a web server in the manner of said intermediary;

at least one of developing, producing, selling, transmitting via said web server, and receiving, via a network, a set of machine-readable instructions executable by a digital processing apparatus to perform a method of capturing a dialog on said network using said intermediary;

at least one of developing, producing, selling, transmitting via said network, and receiving via said network a set of machine-readable instructions executable by a digital processing apparatus to perform a method of at least one of filtering and modifying a dialog being processed through said intermediary;

at least one of receiving, displaying, storing, analyzing, and receiving an analysis of a dialog captured using said intermediary;

at least one of developing, producing, selling, transmitting via said network, receiving via said network, and executing a set of machine-readable instructions executable by a digital processing apparatus to at least one of receive, display, store, and analyze a dialog captured using said intermediary.

28. (Rejected) The method of claim 27, wherein said capturing a dialog provides a method for at least one of:

evaluating a website comprising said web server;

improving an efficiency of said website;

determining a state of said user;

influencing at least one of an action and a selection made by said user; and

conducting an interview with said user.

29. (Rejected) A method for deploying computing infrastructure, comprising integrating computer-readable code into a computing system, wherein the code in combination with the computing system is capable of performing the method of claim 1.

30. (Rejected) A method of enhancing a dialog with a web server, said method comprising:

comprehensively capturing a dialog with said web server by:

setting up an intermediary when a user contacts said web server;

modifying URLs sent by said user so as to route requests of said user to said intermediary; and

modifying URLs sent by said web server so as to route to said intermediary the responses of said web server to said requests,

said intermediary thereby capturing all requests and responses of said dialog.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None